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SMITH'S

Guide to Small Fruit Culture

AND

PRICE LIST OF PLANTS.



B. F. SMITH, Box 6, LAWRENCE, KANS.

PRICE FIFTEEN CENTS.

B. F. BOWEN,
W. C. BRINKER.

Established 1878.


BOWEN & BRINKER,

—WHOLESALE—

Commission * Merchants.

CALIFORNIA FRUIT.

Nos. 1517-1519 Holladay Street,
DENVER, COLORADO.

 *Fruit, Produce, and Commission Department.*

HARGREAVES BROS.,

LINCOLN, NEBRASKA.

The oldest established and largest house of the kind in Nebraska.

Consignments Solicited.

Reference:—Any Commercial Agency, Bank, or Wholesale House in Nebraska.

D. E. SMELTZER & CO.,

—PRODUCE—

COMMISSION MERCHANTS,

AND WHOLESALE DEALERS IN FOREIGN and DOMESTIC FRUITS and VEGETABLES.

520 and 522 Walnut Street,

REFERENCES: Union National Bank, K. C.
Mercantile Agencies.

KANSAS CITY, MO.



We bade the old man "year" that we called 1890, a final farewell a few weeks ago. In some respects the old gentlemen treated us well the past year. He gave us a fine spring season for

digging and shipping plants, and we thankfully made use of it. He sent us patrons from a wide extent of country; from our old home in Illinois, where we shipped nearly one hundred thousand plants, to the most distant

regions of California. Our plant season closed about the middle of May. Hundreds of testimonials verify the fact that plants were generally satisfactory. 1890 gave us the largest crop of berries we ever raised, and the lowest prices we ever received. But while 1890 failed to fill our purses he did greatly reward potato and apple growers in our state and Missouri with large crops and the best prices received for these products in many years.

Thanking you one and all for your kind words and patronage the past year, we take pleasure in introducing you to the beautiful child we call 1891. We trust that he will give us an experience that will be more profitable and acceptable than did his predecessor 1890.

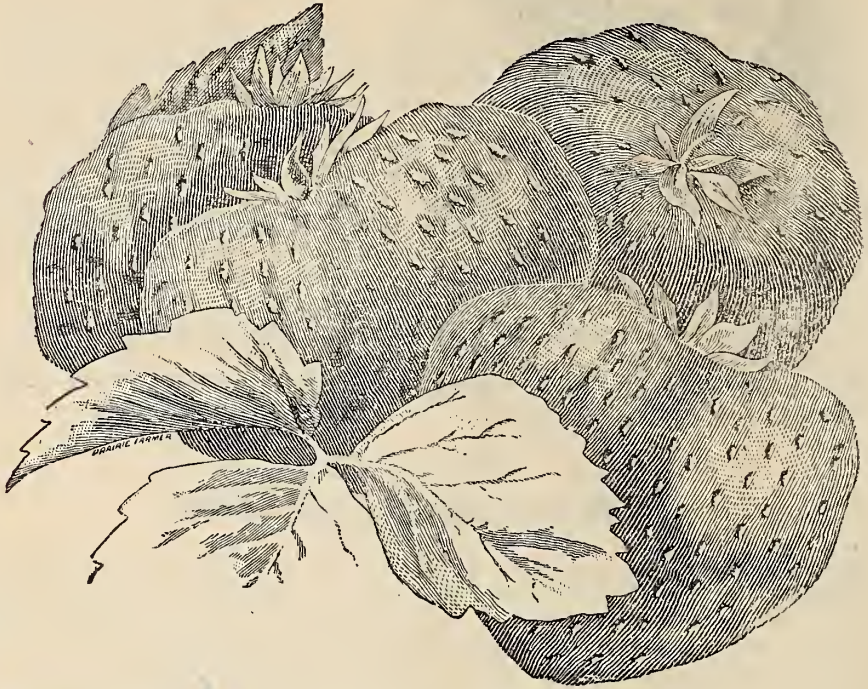
HIGHLAND SMALL FRUIT FARM.

OUR new Highland Small Fruit Farm is half a mile South East of the city limits, and three-fourths of a mile from our city residence. It is located on a beautiful elevation overlooking the city of Lawrence, and being near the Government Indian School furnishes a fine view of that institution with its numerous and handsome buildings. It is our intention to make this a model small fruit farm, both for beauty and utility. It will be largely experimental as many of the latest novelties will be thoroughly tested, and the results given through our catalogue, from year to year, for the benefit of our customers and friends. A cordial invitation is extended to our patrons, and others interested in berry culture, to visit our experimental berry farm this year during the fruiting season, and note the behavior of both old and new sorts.

NO AGENTS.

THIS catalogue price list is our only agent. We will try to make it our guide in filling orders. The information we give is almost free. It embodies twenty-five years of experience, embracing many varieties of small fruits; hence it is believed that it will give more practical information than any agent could impart. Then by examining the prices herein, one will notice that they are much lower than those usually asked by traveling salesman. So whatever arrangements you find here in prices that agree with your idea, the sale if you purchase, will be direct from producer to consumer.

NEW STRAWBERRIES.



Schumann 1874 EDGAR QUEEN.

As described by the introducer, B. O. Curtis of Parris, Illinois: Last June I decided to put my new seedling strawberry on the market in the following way, at two dollars per dozen, the plants not to be sent out until I got one thousand orders. It is my No. 51, selected from over five thousand plants, that I have raised from seed and tested in the last seven years. It has given five crops in succession and apparently improves each season. It is the largest, the most productive and the finest in quality of any variety that I have ever grown. I have fruited over one hundred of the most noted varieties which have been sent out since the advent of the Hovey's seedling, and none of them have equaled this magnificent new variety. It is conceded that the originator of a new fruit has the first right to name it and if he does not, the Horticultural Society has the next right. I claim my right and publicly christen it the EDGAR QUEEN. Edgar is a noble county, worthy of the berry, and the berry is worthy of the name, and while we as good democrats and republicans differ on politics, we may now bow to this Queen of fruits and all be united in the verdict that it is the most wonderful berry that we have ever known.



Introducer's Description :

Lovett's Early is a chance seedling (believed to have descended from the Crescent crossed with the Wilson) that was discovered in Kentucky in 1885, near the place of origin of Chas. Downing, Kentucky and Downer's Prolific. Both in Kentucky and New Jersey the variety has been tested by the side of all the best varieties in cultivation, upon poor soil, and without fertilizers and in every instance it has given results surpassing by far all others, responding to good soil and culture as generously as any variety we know. In earliness it is second only to Crystal City (that little extra early sort being but two or three days in advance of it) and in productiveness it excels all other varieties we have ever fruited ; and succeeds everywhere, even upon poor, light land. We do not

claim for it mammoth size, but that it is above medium, averaging large and very uniform, holding its size to the close of the season better than any other varieties —by reason of its foliage maintaining perfect health and vigor until all berries have ripened. The berries color all over at once, never with a green tip; seldom illshaped and never cockscombed.

.....

✓ ROBINSON SEEDLING.

This variety was originated in Franklin County, Kansas. A leading berry grower recently informed me that the Robinson, was his best paying strawberry last year.

J. G. Robinson writes us as follows about its origin: Robinson Strawberry originated by planting seed from a Crescent Strawberry which was fertilized by pollen from the Charles Downing and is therefore a cross of the Crescent and the Downing and it possesses all of the merits of both parents without the faults of either. In habit it resembles the Crescent while like the Downing it is a strong staminate and is an excellent fertilizer for pistillate varieties, blossoming at the same time. It is a few days later than the Crescent but continues in bearing as late as the latest of all varieties and will produce more well developed berries than the Crescent on a given area of land, while the fruit is larger and of a superior quality to either of its parents. Its foliage never rusts and it possesses great vitality, and its only fault is its tendency to make too many plants which should be kept in check by cutting the runners.

.....

✓ GREAT PACIFIC.

This variety originated with D. J. Piper of Ogle County, Illinois, and was sent out last spring on contract. All persons who got it had to sign a contract not to sell any plants before September 20th, 1891, for less than \$2.00 per dozen or \$10.00 per hundred.

Mr. J. V. Cotta says, "after fruiting it on his own grounds, it produced ten times as much as Jessie and is far ahead of anything that has ever come to his notice of strawberry kind. On my ground it is a very robust, healthy grower, making lots of runners and good strong plants, growing the past hot, dry season with great vigor, without a sign of rust or sun-scald."

.....

✓ THE PEARL.

This variety has made some friends, and good reports have gone out concerning it in many localities. Its fruit is as firm as the Downing, and in color dark red. The plant is a strong grower. It is said by all who have fruited it in the East that it is more attractive than the Captain Jack, but we fail to note any points in the Pearl that are superior to the Downing, Captain Jack, or Windsor Chief.



✓ THE GANDY.

The Gandy is a cross between a Jersey Queen and Glendale combining the size, beauty and good quality of the former with the firmness and lateness in ripening of the latter. The plant is a very strong grower, productive and with perfect blossoms, its foliage never rusts or has any other disease and the fruit never scalds, no matter how hot or wet the weather. The berries are of mammoth uniform size and shape, of bright crimson color, very handsome and showy, of superior quality. Truly the ideal *late* strawberry, ripening two weeks after Sharpless.



Right way of planting.

PLANTING

Do not set plants on a dry, windy day if it can be avoided.

For setting plants hardly any two men adopt the same methods or use the same kind of tools. While some use a spade, and boy to carry the plants, others mark off the rows with a horse and narrow shovel plow, opening a furrow three or four inches deep; boys follow dropping plants, while others follow, spreading the roots and packing the soil firmly around them. We use a line and employ men to set all our plants. To each line two men with bright garden trowels and a small box or basket of plants, with roots moistened with water. The men keep the plants heeled in the ground in one of the roads, before referred to, taking out only two or three bundles at a time.

Remember, plants received from abroad *must* be unpacked on arrival. Loosen the bunches and heel them in the ground.

When it is desired to grow strawberries in hills or in the garden, make the beds about six feet wide, three rows to a bed, with an alley two feet wide between each bed. Set plants twelve inches apart.

Great care should be exercised in setting plants. Careless planting never pays. The roots should go down their full length into the soil, being spread with the fingers somewhat in the shape of a fan; then the soil should be firmly pressed with the hands around them.



Wrong way of planting.

CULTIVATION.

ABOUT ten days or two weeks after planting, a small iron-tooth rake will do effective work in loosening the soil around the plants as well as destroying young weed growth. To follow this, a small steel or iron-tooth horse cultivator may be worked between the rows every ten days during the summer-

When weeds begin to grow the hoe must be used, tenderly, around and near the plants, to loosen up the soil. When the runners begin to grow, they must be trained to set in the spaces between the plants. At no time during the summer allow the strawberry beds to lay long after hard beating rains, before you stir the soil between the rows. As soon as the rows are well set with young plants, making a continued row ten inches wide, then cut off all runners, keeping an open middle. Keep down all weeds from their first appearance after planting, to close of the weed-growing season, which, in our climate, is about the middle of September.

Much more might be said of cultivation. We could occupy a dozen pages in taking in all the details of cultivating the berry field the first and second years after planting. It is a much easier matter to set out a berry field than it is to take care of it after it is planted. There are but few new beginners and comparatively not many old planters who realize the importance and real bene-

fits of thorough culture in the berry field. Weed growth in the west is very rapid, and when the season is a wet one it will tax the energy and calculation of planters to the uttermost to eradicate the weeds in the months of June and July. Summing up the whole matter, the berry grower should be an active person, not giving away to any of the discouraging features that lie along the road, such as dry or wet weather, frost or hail storms.

STRAWBERRY LANDS.

LET no one who loves the strawberry and who lives on a town lot, or who is the owner of a forty-acre farm, think that he has not a plot of land fit for strawberries. To one who may be in doubt of the fact let him go abroad on the prairies or along hedge fences and he will discover the wild strawberry growing where the seed were dropped by the sweet singing birds of the forest. Here all among the grass the seedling strawberry grows and bears its tiny fruit every season. Here, too, the birds get their supply of berries when there are no neighboring berry growers who raise larger or sweeter berries. For birds are like children, they always pick the largest ones that they can find.

The strawberry vines seen on the highways are standing witnesses to the certainty that berry lands are present, and the farmer who desires to raise a supply for his own use or for market can do so.

The best soils may be found in the timbered lands bordering on the creeks or the slopes near the foot of hills. But berries may be planted on any soil that will produce good wheat or corn. The year previous to planting the ground should be broken and well pulverized, and harrowed several times during the season. Land where sweet potatoes or cabbage grew the year previous to planting will work nicely for any kind of berries.

If such grounds are not convenient to be had, and if it is desired to plant this year, then seek a location in a corn field where the ground is clean. Break it in February or early in March, and harrow and cross-harrow till thoroughly pulverized.

THE STRAWBERRY FIELD.

A berry field may be of any size that will afford the greatest convenience to the cultivator. It may contain one, two, five or ten acres, or only a few rods for home use. Whatever the size may be in acres, there should be wagon ways around and across it for the purpose of hauling manure when necessary, or mulching for winter protection.

For field culture, plant in rows from $3\frac{1}{2}$ to 4 feet apart, and in the rows plants should be set from 12 to 15 inches apart. When plants are low in price the space may be shortened, or when high they may be set from 18 to 20 inches apart. With good culture and a moderate season for plant growth, the space between the plants will be well filled up. It is always best to break the land for the berry field late in the fall or early in the winter months, as freezing kills the white grubs and the ground is in much better condition for planting than if plowed in the spring.

A few days before planting a drag or fine smoothing harrow run over the field will leave the soil very much in the condition of a pulverized bank of ashes.

⇒ Observations on Behavior of Strawberries ⇐

SEASON 1890.

✓ **ATLANTIC.**—On account of its lateness and firmness we planted more of this sort last season than formerly. In weight it is the heaviest berry we ever saw. A crate of this berry weighs five pounds more than any other variety. The Crescent is half gone when it begins to ripen. It is about as firm as the Captain Jack and a few days later. In product it equals the Downing. Berries are a bright scarlet, long pointed and glossy. It stands up well in transit from Lawrence to Albuquerque, New Mexico.

✓ **BELMONT.**—This variety was originated in Massachusetts. It did better last season than it did in 1889. While it may be classed fairly productive, we have at least a dozen sorts that are more profitable.



Bubach.

✓ **BUBACH.**—This was the largest berry in our collection, but it did not attain my ideal, as it does many of our small fruit growers. I never was an admirer of a great illshaped strawberry; especially when being as soft as the Bubach and Cumberland. Its fruit is sadly wanting in flavor, and its color is not of that beautiful scarlet that is characteristic of the Gandy, Windsor Chief, Captain Jack, Mt. Vernon and Atlantic.

✓ **KENTUCKY.**—A late well known old variety, rich flavor, but too soft for shipping.

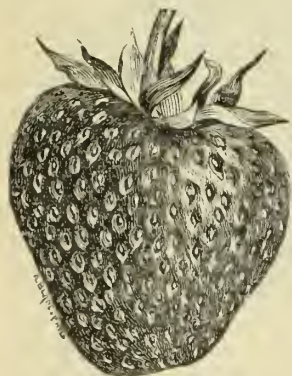
✓ **JAMES VICK.**—This sort returned us a very large crop of firm berries. When its plants are allowed to set compactly its berries are small, but when its plants are thinned out, the fruit is as large as the Captain Jack.

✓ **CHARLES DOWNING.**—This old standard sort, whose flavor is admired by every body; gave us the best crop it has ever done; on some of our beds its berries were as large as the Cumberland.

✓ **CRESCENT.**—This sort, as usual, produced a large crop of berries but the markets being glutted with them and prices too low for any profit, we gave the pickers all they would carry away, and left the balance for the birds and bees, while we picked firmer and more profitable berries.

✓ **HAVERLAND.**—This sort is highly praised in many localities. There is no question about its immense product; it is even more productive than the Crescent, but its softness and poor taste render it unsatisfactory. Firmness, accompanied by excellence of taste is what is wanted by both shipper and consumer.

✓ **JESSIE.**—In regard to flavor this sort is one of the best. As regards to product last season, it did better for us than at any previous year since we began to grow it.



May King.

✓ **MAY KING.**—This has been my favorite in flavor for several years, but the last season's product was not satisfactory.

✓ **LIDA.**—This variety was introduced by the late Wm. Parry of New Jersey. It is fairly productive but we have at least a dozen that are much superior.

✓ **MAMMOTH.**—In name only, but not in size. More than half a dozen other sorts lead it.

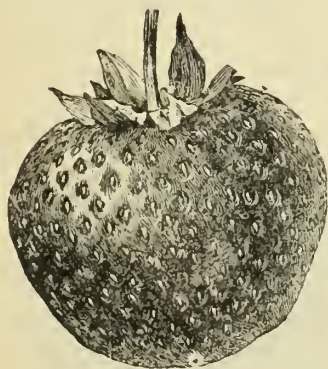
✓ **MONMOUTH.**—In plant growth it is feeble, and in fruit product no better, and no earlier than the Crescent.

✓ **JUMBO.**—See Cumberland, a synonym.

✓ **ROBINSON'S SEEDLING.**—See under head of "New Fruits."

✓ **CUMBERLAND (Jumbo).**—Did remarkably well last year. It is much better, to my taste, than Bubach. At the strawberry festival held by the ladies of the M. E. C. where we had 33 varieties, a committee of ladies gave it first premium for flavor. Then they sold the quart of berries on exhibition for fifty cents.

✓ **DUTTER.**—We do not know who introduced this berry. We got our plants of Mathew Crawford, a careful grower of Ohio. On our soil it is worthless, not even deserving a description.



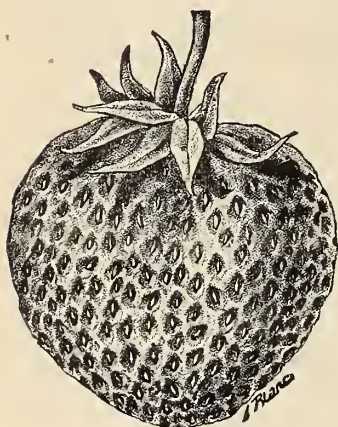
Parry.

✓ **PARRY.**—Among the many berries, the late Wm. Parry introduced, we place this one first. In size and taste there are but few better sorts; but its softness will always hinder it from reaching distant markets.

✓ **PINE APPLE.**—This sort, including Gold, Dutter and Itasca, are the most unprofitable on my grounds. Yet we grow them for a few people who hearing good reports from them, now and then, in other localities, want to test them.

✓ **OLD IRON CLAD.**—Well known for its earliness; but the Michel is about four days ahead of it, and much more productive.

✓ **MICHEL.**—This sort is in the lead of all others for earliness. We picked its first ripe berries on the 14th of May, and the first of the Crescent's on the 20th of the same month. Its fruit is not as large as the Crescent, but in profit to grow for a near market it is more satisfactory with me.



Captain Jack.

✓ **CAPTAIN JACK.**—This grand old variety led the van for shipping long distances (1100 miles) then giving better satisfaction than the Bubach did when shipped 150 miles. A few berry growers object to its undersize, but when its plants are not allowed to set too thickly, it will grow as large as the Crescent and Windsor Chief. This is the best variety for fertilizing the Windsor Chief, Bubach, Jersey Queen, Crescent and Haverland. Last year the Captain Jack produced a crop fully equal to the Crescent.

✓ **MOUNT VERNON.**—This is another of our late favorites. The very last picking from our field last season, were the Atlantic, Mount Vernon, Glendale and Manchester. This is a grand quartette of berries, to which we will add the Windsor Chief, for it lacks only two days of

being as late as the quartette above mentioned. Now these five varieties stood by me last season after the old Crescent was out of the way Captain Jack, however, gave me abundant satisfaction all through the season, while the soft varieties did not pay for the crates and picking.

✓ **MANCHESTER.**—This was a grand berry last year; for me it was satisfactory in every respect. It grew too larger size than usual. Its lateness like the Glendale makes it valuable for late market after the early sorts are out of the way.

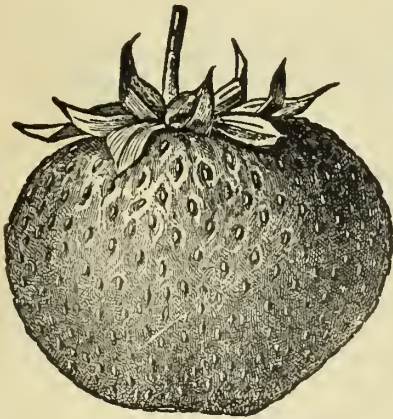
✓ **CLOUD SEEDLING.**—In all my twenty-five years experience I never was so disappointed in any new strawberry. Our southern friends sent it North with a breeze equal to a cyclone, claiming it to be earlier than the Crescent by at least a week. But with me it is not as early. On the poor thin soils of the South it may be a success.

✓ **ONTARIO.**—This sort is so much like the Sharpless that deserves no other name.

✓ **SHARPLESS.**—This famous variety bore the name of the King of strawberries, for several years, or until the Bubach was introduced. Now there is a doubt in the minds of mays growers as to which is the largest. But the new strawberry, Edgar Queen, will doubtless lead them both in the race for the crown.

✓ **GLENDALE.**—This late variety did remarkably well last season. We never approach the close of the strawberry season, but we are very sorry that we have not more acres of this late sort, as our market is always good when the soft Crescent is out of the way, and the Glendale then at its best. We discovered a point in this variety this last year, that we had never before observed. It was where the picking of a small bed had been neglected four or five days. The point in question was the great sweetness of its berries after being left on the vines so long after being ripe enough to ship.

✓ **INDIANA.**—Moderately productive. The excellence of its flavor is its best recommendation.



Jersey Queen.

✓ **JERSEY QUEEN.**—Last year was a good season for this sort. Its berries were the equal of the Jessie. It is one among the best for the home garden and family.

✓ **EDGAR QUEEN.**—See plate and description under head of "New Berries."

✓ **ITASCA.**—Fine in taste, but too small.

✓ **GREAT PACIFIC.**—This sort has not fruited, being first planted last spring. Its plant growth is very flattering and we expect some fine fruit this season.

✓ **GANDY.**—See plate under head of "New Berries."

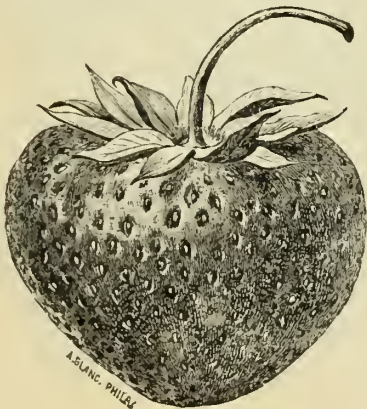
✓ **GOLD.**—Very poor—not even worth a description.

✓ **CONNECTICUTT QUEEN and COUNTESS.**—These two varieties gave us a large crop, but they are both too soft for shipping purposes.

✓ **MINER.**—This old favorite with me seems to be on the decline. It may be in our soil. A rich sandy loam is really necessary to bring out all its fine points.

✓ **LADY RUSK.**—New, and said to be late and a good shipper. It will bear its first berries on my ground this year.

✓ **WARFIELD.**—This is going to be the greatest commercial berry. Its time of ripening is mid-season, being neither early nor late. Berries on plants that are not allowed to set too thickly, are larger, of better flavor, and firmer than the Crescent. There is no doubt but that this sort will, in a large measure, take the place of the Crescent. It is a great plant producer, and will give satisfaction over a wide range of country.



✓ **WINDSOR CHIEF.**—We were the first party to introduce this fine berry to the berry growers of Kansas. In the spring of 1881 we got half a dozen plants, three of which survived the drouth of that season. We gave them a new bed near the home and paid special attention to their culture. Then in 1883 we set out a larger bed, but it was not until the berry season of 1884 that we noticed their great productiveness; and from that year to this time the Windsor Chief has paid us more for the ground it occupied than the Crescent. While it is hardly as productive, it keeps up its size to the close of the season, and being more attractive and firmer it brings better prices.

✓ **SUCKER STATE.**—We have fruited this sort four or five years, and while it has some good points, such as firmness, strong growth of plant, it is lacking in product. It is a late sort, very firm, but the Gandy, Manchester, Mt. Vernon, Windsor Chief, Glendale and Atlantic are its superiors in productiveness in my berry soil.

✓ **WILSON'S ALBANY.**—This is the oldest sort in my catalogue. This famous old variety was originated with a man by the name of John Wilson of Albany, N. Y. The late Peter Henderson the great florist wrote us about the origin of the Wilson and its originator John Wilson was a market gardener of Albany who had but a small plot of ground in berries. Before he knew or realized the worth of this great strawberry, he had divided plants with his neighbors, and thus lost the control of this once famous strawberry. It had a long run, for it was the leading strawberry all over the country for nearly 30 years, and is now in some northern localities planted extensively. On our soil it is a failure, nor does it succeed in any part of Kansas.

FOR PRICES SEE GENERAL LIST.

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IDEAL STRAWBERRIES.

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Ⓐ **ALMOST** every berry-grower has his ideal strawberry. It flourishes in about all localities where berries are grown. In Massachusetts it is one thing, while in New York it is another. Ohio growers cling to the Sharpless, but in Indiana the Tippecanoe is the ideal of the Hoosier. Southern Illinois sticks to the Warfield, and Northern Illinois fights for the Bubach and Great Pacific, while in the Eastern part of that state songs of praise are chanted abroad for the new strawberry Edgar Queen. So here we will give you a pointer, it is this, that we believe the Queen will lead all in size, that ever preceded it. Arkansas is, likewise, lauding the Michel to the skies. Then from good old New Jersey there is Lovett's Early; and yet a Kansas man claims the new seedling, Robinson, to be his best. Now we have all these ideals of other localities, as well as a seedling of our own that may grow into an ideal by and by. As long as we live ideals will be a little ahead of some of us; but at no time and in no other age of the world has there been such an array of good productive strawberries as we have in this new world called the United States. Would add furthermore, that in no other age of the world has the brain of man been so intensely engaged in seeking for the best of everything as now.

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The plants received all right in first class condition. I received them the day after they were shipped and set them out in the afternoon. I ploughed them to-day and I think I won't lose a dozen in the whole lot.—[John C. Umsted, Fort Scott, Kansas.

The plants arrived in good order, and I am very much pleased with them. Accept thanks for promptness.—[M. B. Meily, Warrensburg, Mo.

Thanking you for your very prompt response to my order, and for the nice fresh plants sent.—[R. L. Cochran, Editor Peabody Graphic.



THE best soil for raspberries is a deep sandy loam; but they will grow and yield paying crops on any soil that will grow corn or potatoes. The cultivation of a raspberry plantation is as simple as it is to grow a field of corn. Prepare the ground as for an Irish or sweet potato crop, and plant in rows four by six feet. Planted thus they may be cross cultivated. Mark off the ground as if intended for corn, and set plants about three inches deep, pressing the soil firmly around the plants. Red raspberries should be set an inch or more deeper than blacks, but the same distance apart. The ground on which they are planted need not be entirely lost the first season of their growth, as a row of corn, or potatoes, which is better, may be planted between the rows of raspberries.

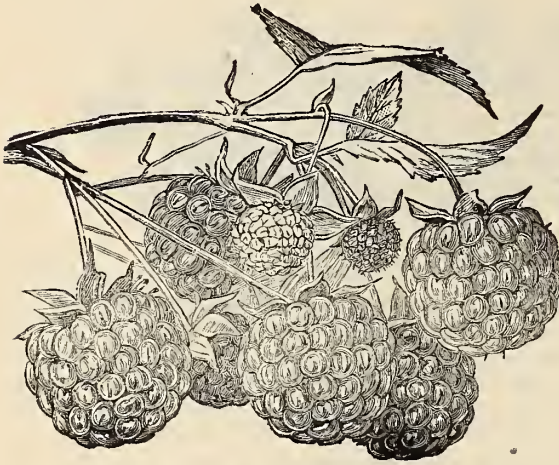


THE LOVETT.

THE LOVETT is a chance seedling originating in Jefferson Co., Indiana, where it has been fruited for several years by the side of the Doolittle Improved, Gregg and other popular sorts. proving each season *as early as Doolittle, as large as the Gregg, perfectly hardy, very firm and a good keeper, very sweet and of the finest flavor*; the Gregg being winter-killed to a greater or less extent in adjacent rows each season.—[Introducers desc.

BRANDY WINE.—This is a hardy red variety; berries very firm and a shade darker than the Turner.

SHAFFER.—This sort is growing in favor for canning purposes. It is probably the most productive of all raspberries. The fruit is a dull purple red not firm enough for shipping above a hundred miles. The bush is not perfectly hardy. Very severe winters partially kill the bush.

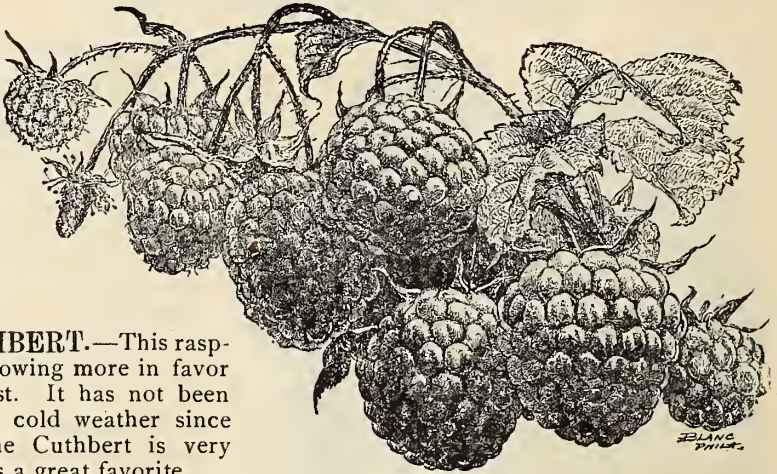


THE THWACK.

✓ **THWACK.**—This is the firmest of all the red sorts. Berries a bright scarlet, and a better shipper than any of the black caps. Shall plant more Thwacks than any other reds for western markets.

✓ **GREGG.**—This sort is so well known that a description is unnecessary.

✓ **SMITH'S IRON CLAD.**—This variety originated in Douglas County, Kansas, about twenty years ago. In growth of bush and fruit it is much like the mammoth cluster. It ripens about three days earlier.



✓ **CUTHBERT.**—This raspberry is growing more in favor in the West. It has not been injured by cold weather since 1885. The Cuthbert is very late, and is a great favorite.

✓ **MARLBORO.**—The berries largest of all the reds. Cane not as strong a grower as Cuthbert or Thwack.

✓ **GOLDEN QUEEN.**—This sort is fully equal to the Cuthbert, its parent, in growth of bush and in the size of its berries. The bush is even more hardy than the Cuthbert.

✓ **MAMMOTH CLUSTER.**—Old and Reliable.

✓ **SOUHEGAN.**—This is the hardiest of all the black varieties. Neither heat nor cold has thus far injured its productiveness.

✓ **HOPKINS.**—Well known.

✓ **CRIMSON BEAUTY.**—This raspberry has never given me satisfaction.

✓ **TURNER.**—Probably best known of the red kinds. Bush is a very strong grower; fruit hardly as bright as Thwack. It is not firm enough for shipping except in pint boxes.

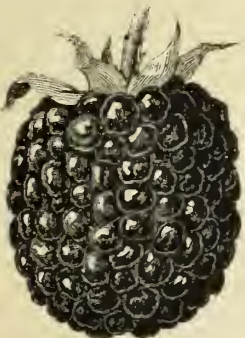
PROFITS OF RASPBERRY CULTURE.

MUCH depends on the season, the cultivation and the prices. The first year after planting, when properly cultivated, a third of a crop of from fifteen to twenty bushels may be gathered per acre. Third year, when the patch is at the full bearing age, from fifty to sixty bushels will be a fair average crop of black or red raspberries.

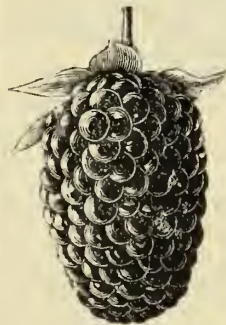
When a raspberry patch is in full bearing and the season is favorable, from \$100 to \$125 per acre, after expense is paid, may be realized. Twenty-five years ago \$150 to \$250 per acre was the estimate on raspberries; but times and the seasons have changed as well as the markets.

THE BLACKBERRY FIELD.

FORMERLY we planted blackberries 3 by 6, but now be plant in rows 8 to 10 feet apart, with a space of 3 or 4 feet between each plant. The same preparation of soil for strawberries and raspberries is good for the blackberry. The cultivation should be kept up all through the summer the first year. One or two plowings and a hoeing after the first year is all that is necessary.



✓ **ERIE.**—I fail to see any advantage in this sort over the Snyder, unless perhaps it may be sweeter.



✓ **Early Harvest.**—This is the earliest of blackberries. It ripens at the time of the Mammoth Cluster raspberry. The fruit of medium size, glossy black, and firmer than any other berry known.

✓ **SNYDER.**—Bush a very strong grower, hardy, very productive.

✓ **STONE'S HARDY.**—This sort is as productive as the Snyder. Berries are more oval. Bush is not so strong a grower as the Snyder, but it will stand more drouth.

✓ **KITTATINNY**—Is old and well known.

✓ **WILSON JUNIOR**.—This is a grand blackberry, but it will not stand our cold winters. The bush is a strong grower, but it freezes down nearer the ground than any blackberry we know of.



✓ **TAYLOR**.—
Bush as hardy as Snyder; fruit as large as Kittatinnny, very sweet. It ripens more slowly than the Snyder. Last year I had Taylor berries ten days after Snyder were gone. No fruit-grower will make

a mistake in planting the Taylor.



Very much like the Early Harvest. Said to be more productive in New Jersey. Fruit is a little larger on our ground than the Early Harvest.

The Strawberry plants arrived on the 16th, in fine condition. This was the quickest order, I believe, that I ever have had filled.—[S. S. Mountz, Belle Plaine, Kansas.]



POLLENIZING.

IN former catalogues and price lists, we have recommended four or five rows of pistillate varieties to two or three of staminate.

But our latest experience proves that an equal number rows of staminate are surer of abundant fertilization. The best fertilizers, are the "Captain Jack, May King, Miner and Downing among the older sorts. The Jessie is probably the best among new varieties. Some berry growers recommend the Sharpless, Bidwell, and others that are not productive enough within themselves for profit, but when we have staminate that are productive it is more profitable to use them for pollen, than to use a dead head variety simply for that purpose.

When we have very wet weather during the blooming period of strawberries, it is detrimental to the proper fertilization. The pollen dust is not equally distributed; hence so many imperfect berries during a wet season. The finest crop of berries we ever raised was when there was scarcely any rain during the blooming period.

All varieties in the table marked with P.—are pistillate.

TWENTY-FIVE YEARS IN THE BERRY FIELD.

TWENTY-FIVE years ago this spring we resigned a \$1500 situation on the Illinois Central R. R., to engage in fruit culture. Having been in the employment of the Rail Road eight years, we had the opportunity of witnessing the beginning of the strawberry industry that has made Southern Illinois so famous as a fruit country. It was while thus engaged about the first of May 1860 that we carried the first four quart package of strawberries in our baggage car, grown in that region. The package was marked to some of the officials of the Rail Road, in Chicago. The berries were raised at a small station twenty miles North of Cairo. As we had been in the employ of the company two years previously, and not seeing or hearing of any cultivated berries, we feel assured that this was the first package of cultivated strawberries that was shipped from South of the Ohio and Mississippi railway to Chicago. For some three or four years the first berries shipped from Southern Illinois sold from one dollar to one dollar and a half per quart, in Chicago for the first consignments. Hence the profits of berry culture in those early years so stimulated the industry that the R. R. Company began to run a regular fruit train in 1867, leaving Southern Illinois in the afternoon and arriving in Chicago the following morning.

With the extension of the Illinois Central R. R. through Central Mississippi to New Orleans, enterprising berry growers have extended this industry along its line, till now the train starts in lower Mississippi about the 20th of March, then follows the berry season up into Illinois. When the season is at its best in Illinois there are from twenty to thirty-five car loads of strawberries delivered daily in Chicago by this road.

SHALL WE DISCOURAGE the GROWTH of the CRESCENT?

As berry-growers, for commercial purposes, we should discard the Crescent strawberry. In my report as Chairman of Committee on Small Fruits, at the late meeting of the Kansas State Horticultural Society, I did all I could to discourage its culture, on the grounds that "all the large markets of the country were glutted with them, because of their softness and unfitness for re-shipping to the smaller markets of the country towns." My commission merchant in Denver, writes me every year to ship Capt. Jacks, and other firm berries that he can re-ship to his trade in the mountain towns. Hence the case in Denver will apply to all the large markets. The smaller markets would consume a large amount of berries, were they firm enough for re-shipment. When we ship berries that are firm enough for further transit, the commission men or other dealers have to bill them out according to the low grade price that is established or governed by the vast quantities of soft Crescents on the market.

When the picking season of the Crescent is about half over, the rest of the crop is worthless, save for canning or preserving. In fact, it is a great hindrance from first to last, to the commercial value of good berries.

I began last spring to curtail Crescent planting, by setting only one-half acre out of ten acres, which I planted largely in Capt. Jack, and other firm varieties. Samuel Miller, of Missouri, and other writers on small fruits, favor the overthrow of the Crescent as a commercial berry. The question is, to pre-

vail on or persuade those large commercial strawberry-growers to see that there are larger profits in a less number of acres, planted with firmer varieties. I have advice from some of the largest Crescent berry-growers in the West, that no money has been made out of the Crescents for several years.

Will our berry cultural friends consider this matter candidly? If we would be prosperous berry-growers, we must make a study of this matter of over production, and how we may combine not to grow a surplus product, beyond a healthy, active market. To produce a surplus of products, no matter what they may be, whether fruits, grain, cattle, or manufactured goods, is a waste of life and capital. Hence, the salvation of the fruit-growers and the common farmers, is to unite and form a sort of secret bureau of information about what the markets can consume of our fruits. Then let us limit or extend our planting accordingly, making due allowance for possible failure in short crops. Thus fortified, we would not plant in darkness, but would have light enough to guide us in the probable supply of the markets, and thus avoid overproduct.

RASPBERRIES.

THE raspberry crops were less satisfactory in product the past year than they were in 1889. While it was too wet then, this last season was too dry. Berries, however, were firmer and stood the racket of transit; and prices were better than they were in 1889.

For earliness and productiveness the Souhegan is first. However it is not giving the satisfaction it did a few years ago. The cane growth is becoming more spindling, while its fruit is not so large. In fact some of its friends are losing confidence in it, and they are looking for an early variety that has more vitality. The Gregg is likewise growing less productive, while its cane growth is not as large as formerly. The old McCormick, Miami, Smiths Ironclad, and even Hopkins, are not the berries they were eight or ten years ago. Hence it is advisable that we, as berry-growers, be on the alert for varieties of black-caps that will stand the extremes of our seasons and return us value for labor bestowed on their growth.

The red varieties, Cuthbert, Thwack and Brandywine seem to be as vigorous in growth of bush and product as formerly. Likewise the Shaffer, which is neither black nor red, but purple, still holds its own in vigor of growth. The fruit, however, is too tender for distant shipments.

BLACKBERRIES.

IN the race among the blackberries for a long life, the Snyder and Taylor are in the lead. These two varieties are as strong and vigorous as they were in the beginning. While there are other sorts whose fruit is larger, their canes are full of disease, made so, probably by cold winters. Hence the experience among berry-growers is in favor of the Snyder for first place, and the Taylor next in the race. The Early Harvest is too small, and too early, coming as it does, along with the Souhegan raspberry. Stone's Hardy is but little larger

than the Early Harvest; the only merit in it being its continuing a few days after the Snyder has gone. There is more anxiety among fruit growers for an improvement in the raspberry than there is on the strawberry. We have at least a dozen profitable market varieties of strawberries, while we have only two or three of Blackberries.

There is, therefore, an inviting field open to the finder, or producer of a few good raspberries, and for at least half a dozen good blackberries.

MARKETING THE BERRY CROP.

THE question of marketing fruit has grown to be a serious one, and by no means easy of solution. The berry product the last two years, has been larger than the demand, or in other words, berry-growers are increasing faster than the consumers. Again, the cost of transportation is not in keeping with the low price of our berries. Another serious matter is the careless handling of our berries when transferred from one road to another. The wagon and truck drivers in the employ of the transportation companies, seem not to understand the necessity of carefully handling easily damaged fruits. Tender fruits must be handled tenderly when in transit, even for a short distance, in order that the packages may arrive at their destination in a fit condition to meet the wants of consumers. Were a petition signed by all small fruit-growers, and sent, every season, to the transportation officials, asking for the proper handling of our berries; the evil might be remedied.

A WORD TO OUR CUSTOMERS.

WE have many customers who have bought plants of us every year since we began to grow plants for sale. It is always a pleasure to hear from them. They will find no other plant growers who will try harder to supply them with good plants true to name. Whether you want plants or not it will do us good to hear from you, and to know what you are doing in fruit growing.

A few of our old patrons went to California during the great boom craze, who doubtless failed to realize their cherished desires, as fruit growing in that sunny land is beset with more hinderances than it is in Kansas, notwithstanding the extremes of our mid-continent climate. A warm and equible climate is very agreeable to our bodies, as we grow in age, but the vigor and tonic we get out of a North-Western blizzard make us more active and better servants of the age in which we live.

The strawberry plants received the same day, they are in fine condition. Have them set out, and do not think I shall loose one. Please accept thanks for 50 extra Jessie plants. When I need more I shall certainly send to you for them.—[Jas. Johnson, Harveyville, Kansas.

The plants arrived in good condition, can say that you raise good plants. I will recommend you to my neighbors. Thanks for good count.—[W. R. Stover.

Remarks to Purchasers.

OUR LOCATION is in the most fertile fruit growing region in the State of Kansas. There are more berries, more plants, more apples, and pears shipped from Lawrence than from any other three towns in the State. Our own shipments of fruits and plants last year was above 5000 packages. Owing to the drouth of last season, there is a scarcity of strawberry plants throughout the West, hence the advance in prices, which are regulated according to the supply. Still my prices are lower than are those of our nursery friends farther East.

OUR STOCK is of our own growing—pure, strong, healthy plants. Our plants are tied 25 in a bunch, and packed in light boxes. We sell only young well rooted plants from which all dead leaves and runners have been removed. They are packed in shallow boxes, the roots are in moss and the leaves exposed to the air.

TERMS OF SALE. Cash with the order. No trust, no bad debts. This is better for us and better for our customers. It enables us to sell at lower prices.

REMITTANCE may be made in cash by express, by registered letter, or by P. O. order, or by draft on Kansas City, St. Joe, or Chicago.

DURATION OF PLANT SEASON. Shipping in spring begins about the 25th of March and continues till about the middle of May, and in the fall from October first until freezing sets in.

SMALL ORDERS. Orders for less than \$1. are not desired, as the cost of booking, packing and necessary correspondence exceeds the amount in value of such orders.

PRICES OF PLANTS. Five hundred of one kind will be furnished at one thousand rates, but the prices in the table must be the guide for mixed orders of several kinds.

OLD PLANTS CONDEMNED. A standing rule, and leading feature of our business is, never to send out a two year old strawberry plant, and permit no plants to go out from my grounds not true to name. *It has been our custom for years to take our plants from new one year old beds that have never born a crop of berries.*

PRINTED LABELS. Where orders are mixed with several kinds, each bunch will have a printed label. In orders for several thousand, seperate boxes or partitions between different sorts will be the guide for separation.

PACKING HOUSE. The cars on Massachusetts street run direct to our packing house and residence, where visitors are invited to inspect our mode of packing berry plants.

NOVELTIES. Among the dozen new varieties of strawberries in our list, are two exceedingly promising new varieties. These are the Edgar Queen and Robinson Seedling. No berry grower will make a mistake in adding these two varieties to his list, no matter how large it may be.

LARGE ORDERS. To parties who want from 20000 to 100000 strawberry plants. Special prices will be made.

BEST RED RASPBERRIES. We have a superior stock of Cuthbert, Brandy Wine and Thwack, red raspberry plants. These varieties are as hardy as any of the black sorts, and their berries will bear shipping as far as Denver, where they bring better prices than the black sorts.

CORRESPONDENCE. We like to correspond with those who want plants, and especially with our old patrons who have been dealing with us since we began the business. Now if you want small fruit plants, write to us and get our prices. Don't send away off East for plants that you can buy at home for the same price or less money.

Merits of the Strawberries.

The Michel, Cloud, May King, old Iron Clad, and Crescent. are the earliest varieties.

Later sorts are the Captain Jack, Miner, Warfield, Chas. Downing, Jessie, Bubach, Sucker State, Sharpless, Cumberland, Indiana.

Still later varieties, Windsor Chief, Jas. Vick, Manchester, Kentucky, Parry, Gandy, Lacon and Lida.

The very latest sorts, Jersey Queen, Mt. Vernon, Gandy, Glendale, Countess and Connecticut Queen.

The best shippers: The Capt. Jack, Jas. Vick, Windsor Chief, Charles Downing, Glendale, Manchester, May King, Sucker State, Mitchell.

The largest berries: Jessie, Bubach, Windsor Chief, Sharpless, Manchester, Miner, Parry, Jersey Queen, Mt. Vernon, Edgar Queen.

Best flavored: To our taste, May King is the first in flavor. More than a dozen varieties claim second honors. We name Mt. Vernon, Miner, Jersey Queen, Chas. Downing, Windsor Chief, Sharpless, Indiana, Kentucky, Parry.

The Strawberry plants you sent me came all right. I am well pleased with them. Many thanks for your present, which I appreciate very much.—[Jas. F. Smith, Burden, Kansas.

Strawberry and Raspberry plants received in fine condition and have always found plants true to name, bought of you. I am very much obliged for present of Pearl and Mitchell strawberry plants hoping you may be better known by men that wants plants true to name.—[G. W. Grown, Winfield, Kansas.

PRICE LIST OF PLANTS.

STRAWBERRIES.

NAME.	DOZ.	100.	1000.
Atlantic.....	.40	.75	4.00
Belmont.....	.50	1.00	.....
Bubach (<i>p</i>).....	.50	1.00	4.00
Captain Jack.....	.40	.50	3.00
Champion (<i>p</i>).....	.40	.50	.....
Charles Downing.....	.40	.50	3.00
Crescent (<i>p</i>).....	.40	.50	3.00
Con. Queen.....	.40	1.00	4.00
Countess.....	.40	1.00	4.00
Cumberland.....	.40	1.00	4.00
Cloud, seedling.....	.75	1.00	4.00
Crawford.....	1.00	3.00	.....
Dutter [new].....	.75	.....	.....
Edgar Queen (<i>p</i>).....	1.00	5.00	.....
Gandy.....	.50	.75	.....
Glendale.....	.40	.50	4.00
Great Pacific.....	2.00	.....	.....
Haverland [new] (<i>p</i>).....	.50	1.00	.....
Indiana.....	.40	.50	4.00
James Vick.....	.35	.50	4.00
Jersey Queen (<i>p</i>).....	.40	.50	6.00
Jessie.....	.50	1.00	4.00
Jumbo.....	.40	.75	.....
Kentucky.....	.40	.50	4.00
Lady Rusk.....	2.00	.....	.....
Lacón.....	.50	.75	.....
Lida.....	.50	1.00	.....
Lovett's Early.....	2.00	10.00	.....
Mammoth.....	1.00	.....	.....
Manchester (<i>p</i>).....	.40	.75	5.00
May King.....	.40	.50	4.00
Miner's Prolific.....	.40	.50	4.00
Mt. Vernon.....	.40	.60	4.00
Monmouth.....	.50	.75	.....
Mitchell [new].....	.50	.75	5.00
Old Iron Clad.....	.40	.50	.....
Ontario [new].....	.50	1.00	.....
Parry.....	.40	.75	.....
Pine Apple [new].....	1.00	.....	.....
Pearl [new].....	.40	1.00	.....
Robinson, seedling.....	1.00	5.00	.....
Sharpless.....	.40	.75	.....
Sucker State.....	.40	.50	.....
Warfield No. 2 (<i>p</i>).....	.50	.75	4.00
Wilson's Albany.....	.50	1.00	.....
Windsor Chief.....	.40	.50	3.50

RASPBERRIES.

NAME.	DOZ.	100.	1000.
Brandywine, red.....	.40	1.50	.....
Cuthbert, red, late.....	.50	1.50	9.00
Golden Queen.....	.75	2.00	.....
Gregg.....	.50	1.50	10.00
Hopkins.....	.50	1.50	9.00
Kansas.....	9.00	.....	.....
Lovett.....	2.50	15.00	.....
Mammoth Cluster.....	.50	1.50	8.00
Marlboro.....	.50	2.00	.....
Shaffer.....	.75	1.50	.....
Souhegan.....	.50	1.25	9.00
Smith's Iron Clad.....	.50	1.50	9.00
Thwack.....	.50	1.25	9.00
Turner.....	.40	1.00	8.00
Tyler.....	.40	1.25	.....

BLACKBERRIES.

NAME.	DOZ.	100.	1000.
Early Harvest.....	.50	1.50	.....
Early Cluster.....	.75	.....	.....
Wilson Junior.....	1.50	.....	.....
Erie.....	1.00	.....	.....
Kittatinny.....	.40	1.25
Snyder.....	.40	1.25	9.00
Taylor's.....	.40	1.30	9.00
Stone's Hardy.....	.75	2.00

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Delaware,..... " .45, " 2.50	Niagara, (white). " .25, " 2.00
Elvira, (white)... " .25, " 1.50	Pocklington, (w). " .25, " 1.50
Empire State, (w). " .35, " 3.00	Worden, (black). " .25, " 2.00

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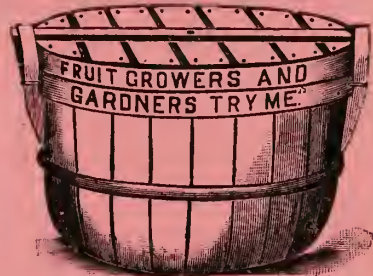
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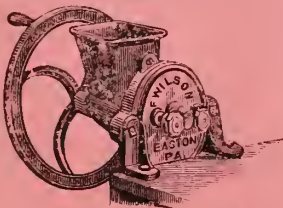
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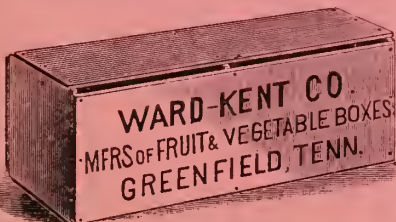
By PROF. L. H. BAILEY.

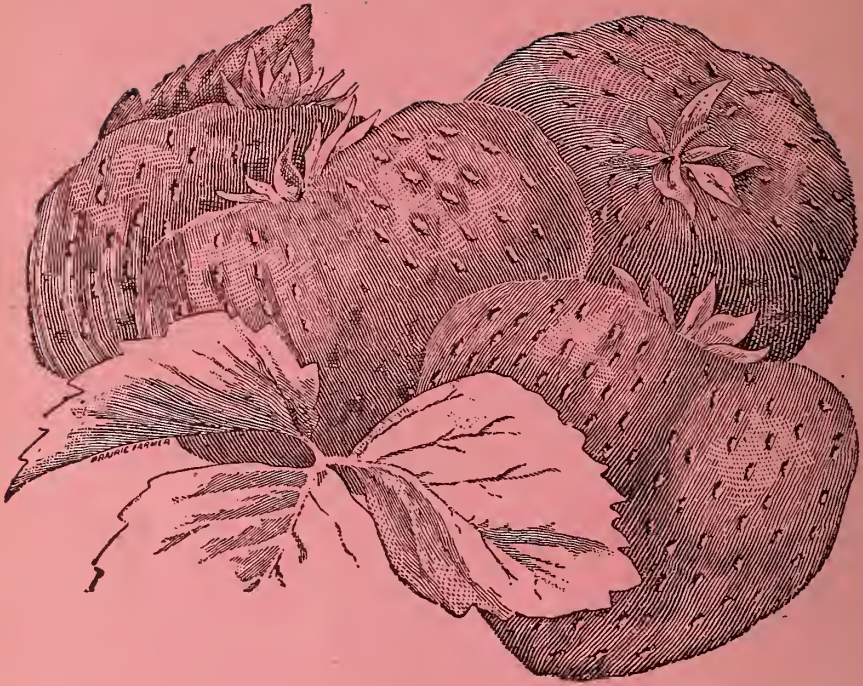
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